

"*State of the Joint.*—On opening the joint, extensive pulpy degeneration of the synovial membrane was met with; the cartilages covering the ends of the bones presented unmistakable traces of former disease; the semilunar cartilages were partially absorbed, the remaining portions disorganized; the anterior crucial ligament gone, the posterior one much absorbed, and consequently thinner than usual; the tissues generally sound. The joint was tolerably healthy.

"After the operation the leg was placed in a suitable box, and kept steady by means of pads, etc. Water-dressing applied; neither sutures nor adhesive straps were employed.

"It would be a work of supererogation, and tend to no practical purpose, to give anything like a daily account of the progress of this case from the time of the operation to the period of cure; suffice it to say, that everything progressed most favourably, and never for a moment did a single symptom occur to cause the slightest anxiety. At the expiration of ten days there was an evident melioration in the little patient's health; five weeks after the operation she was able to raise the whole limb; and three weeks after this, went about the wards on crutches; scarcely three months elapsed when she moved about without any appliances to the knee. The affection of the tibia and fibula did not keep pace with that of the joint; the healing process was much more gradual, owing to occasional sequestra coming away, which naturally kept up some irritation and discharge. For some time past the child has been in perfect health, strong and stout, and can walk quickly about with her little companions. Water-dressings, with the exception of the occasional use of the dilute nitric acid lotion, were the only local applications employed throughout. The most nutritious food, and an abundant quantity of wine and malt liquor was taken; also quinine, syrup of iodide of iron, and cod-liver oil. The child, as I have already stated, walks well. Cicatrices have replaced running sores; and the limb has almost resumed its natural appearance."

29. *Incisions into Joints.*—Mr. GAY, in a paper read before the Medical Society of London (Oct. 18, 1856,) remarked, that three years ago he brought before the Profession, through the medium of this Society, a method of treating certain forms of articular disease by free incisions into the affected cavities; but that since that period his experience of this treatment had led him somewhat to modify his views, and had enabled him with more distinctness to define the particular forms and stages of disease for which it is more especially adapted. His object in making incisions was not merely to evacuate matter, as in the case of an ordinary abscess, and as this proceeding has been adopted and recommended by others; but as well, and even chiefly, for the purposes of allowing the more ready escape of cartilaginous or bony *débris*—often a cause of destructive irritation to a joint—and of setting up reparative action by making a closed or partially closed and diseased sac a part of a large and externally communicated wound. The results of his experience, as that of many of his professional brethren who had adopted his views, had been still more to convince him that free incisions were of the greatest value in those forms of disease to which they were appropriate, inasmuch as they bring the diseased processes to an equally speedy determination as after resection of the joint, and have the greater merit of leaving the flesh less mutilated, and the joint often almost as useful as before. Moreover, the incisions are often comparatively harmless, and, in case of failure, do not lessen the chance of restoring the limb that resection, or other measures of a graver nature, might afford. Mr. Gay then narrated a series of cases. The first, that of a lady, aged 43, who had suffered for three years from all the symptoms of disease of the cartilage and bony structures of the knee-joint, and had come to have the limb amputated. On making an incision into the joint, which Mr. Gay did, with the assistance of Mr. Stephens, over the seat of the principal pain, a small quantity of sero-purulent fluid trickled out with the blood. On examining the interior of the joint carefully, the cartilage was found to be entire, but slightly uneven, leading to the conclusion that the affection commenced in the synovial capsule, and had not seriously implicated other structures. The intense pain from which this

lady suffered, especially at night, prior to the operation, was completely relieved by it; and, with the exception of a rigor on the day following, succeeded by slight fever, which soon yielded to treatment, not a bad symptom followed. The capsule soon healed, and in a month the patient began to walk about. She has since enjoyed the perfect use of her limb. The second was a case of hip-joint disease of three years' standing. A sinus, having two external openings, led into the joint. The limb was bent upon the trunk, and the joint still flexible, but with great pain. The discharge had almost ceased, and the diseased action appeared to be almost stationary, and had been so for several months. The joint was fairly opened by enlarging the sinus; the head of the bone had been partially removed, and was bare. The joint recovered completely after fourteen weeks, with considerable mobility, quite enough to make the limb useful. The third case, of strumous disease of the articular cartilages of the knee-joint, of long-standing, in a boy nine years old; the pain was severe, and the discharge profuse. The incision did not answer in this case, the disease making progress subsequently, as though pursuing its natural course, with the addition of a severe wound, which refused to heal. The fourth case, of "strumous" disease of the knee-joint of three years' standing, in a girl twelve years of age. The joint was greatly distended, and had been so for more than six months. It was opened, a considerable quantity of sero-purulent fluid exuded, and, in defiance of every attempt to keep it open, the wound healed in three weeks, leaving the joint in the same condition as before. It was opened again after six weeks, and from this time the course of the disease was onwards, and removal of cartilages and caries of the ends of the bones, attended with profuse discharge, and failure of health and strength. The treatment in this was of no avail, and Mr. Gay had at last to amputate the limb. The articular ends of both bones were carious, and the spongy texture of the bones intensely inflamed for some distance along their respective shafts. No traces of tubercle, but small deposits of pus in those parts of the bone where the inflammation was most severe. The fifth case, a woman, aged 62, for disease of the joint belonging to the phalanx of the forefinger. It had existed six months, and remained stationary. The joint was quite loose, and grated when moved, also painful. A free incision on each side, and keeping the wounds plugged, led to speedy ankylosis. The sixth and seventh cases were of hip-joint disease in children, of 7 and 8 years of age respectively. The disease in both cases was in its early stages, and in one only had a sinus been formed. Mr. Gay opened the joints freely, but with somewhat varied results. In both fresh abscesses formed, and burst on the front of the thigh. In one, severe pain in the knee-joint followed, which could only be palliated by blisters, mustard poultices, and opium; in the other, symptoms of rapid pulmonary phthisis. These, however, subsequently yielded, and in both cases, after some weeks, the joint disease relapsed into its ordinary forms, the discharge in each being profuse, and the health bad. The incisions in these cases were useless. The last case was of a lad, aged 12, who had symptoms of subacute inflammation of the knee-joint. After three weeks of severe pain, an opening was made into the joint, and some matter passed away. This did not give much relief. The wound ulcerated, and soon after an opening formed spontaneously, nearly two inches from the first, and led into the joint. Very little matter exuded, and the joint continued extremely painful. Some white (apparently) sloughy matter could be seen through these openings. Chloroform was given, and the joint laid open by an incision, which passed through the two sinuses, and a large "pus-clot" was removed, which appeared to have filled the joint to painful distension. Suppuration followed, and the joint rapidly recovered, the lad being able, in six weeks, to move about by means of a stick, and the joint being entire. There were no indications of bone-disease in this case. After making comparisons between these several cases, the author drew the following practical conclusions: That joints might be opened with advantage. 1st. In cases of chronic inflammation of the synovial capsule of a joint, with effusion into its cavity, and pain; especially if these symptoms shall have been of long standing, resisted ordinary remedies, and are associated with marks of declining health, as in the first case. 2d. In cases of acute or subacute synovitis, where the symp-

toms are unusually severe, and the external coverings of the joint indicate a tendency to ulceration; or where, after a reasonable period, the symptoms do not remit, but indicate the existence within the joint of matter, which, from its becoming a source of irritation, threatens to produce more serious mischief, as in the eighth case. 3d. In cases where the joint is occupied by a bony or cartilaginous *débris*, which, from the small size of existing sinuses, cannot find exit; and 4th. In cases of carious disease of the bones, in which, from diminution of pain and secretion, as well as from other confirmatory symptoms, the disease in which the local affection has originated, shall appear to have exhausted itself, as in the second and fifth cases. He (Mr. Gay) condemned the practice (except for the purpose of relieving severe pain) in all cases in which a chance remains that the joint will recover without, and especially in what are termed "strumous" affections of the joints, so long as the continuance of profuse discharge indicates that the constitutional disorder, in which it is presumed to have originated, has not burnt out; and in the event of this becoming exhausted, only when the persistence of sinuses but slightly discharging beyond a reasonable time might lead the surgeon to suspect the existence within the joint of some dead and irritant matter, or the want of some general stimulus to final and reparative action, which, connecting a diseased sac with an external wound, would supply.

Mr. Stephens confirmed, from personal observations, Mr. Gay's report as to the successful termination of some of his cases. He also mentioned one or two similar cases that had come under his own care. One was that of a man who applied to him to have his foot removed on account of acute pain over and around the ankle-joint. The joint was opened, and several pieces of dead bone were removed, and the man was now following his employment as a navvy, having a perfect use of his foot with comparatively little ankylosis. Another case was that of diseased finger-joint, which was injured by a wound from a gimblet, and which, by similar treatment perfectly recovered. His colleague, Mr. Chance, had also operated for diseased knee-joint upon a young girl, of a strumous diathesis, and altogether in a most unfavourable condition. She remained 12 months under treatment, severe symptoms supervened, and she would probably have sunk but for the most constant and careful nursing; she, however, recovered, and by instrumental aid, could now walk about with the fair use of a limb which once threatened to destroy her.

Mr. Rogers Harrison said he had known many diseased joints, doomed for amputation, recover without any surgical treatment whatever.

Mr. Headland thought it a most serious thing to deal with the larger joints in the way recommended; and he should be glad if the author would furnish some guide for a strict selection of cases in which the operation might be performed with safety. When the constitution was involved by active inflammation and nervous disturbance, the irritation was likely to be considerably aggravated by opening the larger joints; the origin of disease was frequently in some other part of the body, and the patient should be treated for the origin rather than for the local manifestation.

Mr. Price adverted to the tendency of tuberculous disease of the articulations to spontaneous recovery, and expressed an opinion that in a few years' time, the amputation of a lower extremity would be a rare occurrence. He had lately saved four limbs which seemed to require amputation, by the operation of resection.

Mr. Henry Smith said he resolved to try the plan recommended by Mr. Gay when that gentleman brought the subject before the profession a few years ago; and he had since adopted it with considerable success, never having seen any evil effects from the treatment. *Small* openings into suppurating joints, as formerly recommended by some surgeons, should be discountenanced. Two years ago he opened a diseased elbow-joint, which was completely disorganized; and, though the case appeared a most unfavourable one, an admirable cure was effected.

Mr. Hancock said, the system propounded appeared to be only successful in those instances in which, in consequence of the long duration of the disease, the actual structure of the joints had become so changed as to diminish the

danger of opening into their cavity. Where the disease was recent and progressing, so far from the opening giving relief, it appeared to be attended with an aggravation of the symptoms. Such had been the result of his own experience. He had been willing to give the system a trial, but he thought he had done great mischief by following it. The cases in which Mr. Gay had made incisions into the sinuses connected with the hip-joint would get well by counter-irritation and constitutional treatment. The practice of incising small joints was followed by Mr. Lynn twenty-five years ago; such incisions might be usefully made in fingers, whose entire removal was rarely necessary.

Mr. William Adams said that in several of the cases mentioned by the author complete destruction of the joint had not taken place. He thought Mr. Gay had understated the success with which his practice had been attended.—*Med. Times and Gaz.*, Oct. 25, 1856.

30. *Leg of a Child torn off at the Knee.*—Mr. POLLOCK exhibited to the Pathological Society, Nov. 4th, 1856, the leg of a child torn off at the knee from its becoming entangled in the wheel of street-cab. The child was brought into St. George's Hospital in the afternoon, and was seen by Mr. Cæsar Hawkins; he was then in a great state of collapse. On examination, it was found that the left leg had been entirely severed from the thigh at the knee-joint. The condyles and articular surface of the former were entirely exposed, and the soft parts were cut round, almost as if amputation by the circular incision had been performed without the bone having been sawn off. There was a simple fracture of the femur on the same side, about its middle, and a good deal of contusion. There was also a degree of tenderness of the abdomen, which led to the suspicion that some visceral injury had been sustained. It was impossible to say what quantity, or if much blood had been lost; but there was no tendency to hemorrhage from the wound, nor from the divided popliteal artery, without any tourniquet or pressure being applied to the femoral. The child having rallied somewhat, Mr. Pollock removed the portion of the thigh below the fracture, and brought the edges of the wound together with sutures. The tenderness of the abdomen had somewhat increased during the evening, and as the urine drawn off contained much blood, it was evident that some rupture of the kidney or bladder might be looked for.

The leg was picked up by a policeman, and brought to the hospital after the child. The patella was found attached to the leg, but the cartilages of neither patella nor tibia were injured. The curious point in connection with this accident was, that the sciatic nerve was torn out with the leg, and was found attached to it some two feet in length. The boy died two days after the accident. Much extravasation was found along the course of the sciatic, and in branches of the sacral plexus on the same side. Some of these branches were shreddy, and broken off close to the ant-sacral foramina. The sacro-iliac joints were separated, and the pelvis fractured on the right, through the pubis, into the obturator foramen. A sharp piece propelled inwards, and corresponding to this, was a rent in the bladder. Urine had become extravasated in the surrounding cellular tissue.—*Med. Times and Gazette*, Nov. 15, 1856.

31. *Displacement of the Trachea, and its Separation from the Larynx, from the Kick of a Horse.*—Dr. BERGER, Surgeon-General of the Prussian Army, reports the following unique accident:—

Cannonier B—, of the Artillery of the Prussian Guard, was kicked by his horse a little below the lower jaw, whilst engaged in washing its hind hoofs. A small, unimportant skin-wound exhibited itself at the edge of the jaw, and some blood, but not much, flowed from the mouth. The neck, however, rapidly swelled to an extent sufficient to materially impede respiration. The patient complained only of a peculiar sensation of weight in the epigastrium, and stated that he felt as if blood had collected in his windpipe and prevented his breathing freely. There was no fracture or injury to be discovered in the larynx. The patient was at once bled, generally from the arm and locally by leeches, without the slightest effect upon the orthopnoea. The latter symptom continued to increase rapidly until so fearful an emphysema had established itself, that